

Work Order ID 153080

Tuesday, November 08, 2016 10:52:00 AM

153080

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Item ID: D4456-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Fwd Raingutter, LH
Start Date: 10/14/2016 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 11/8/2016 Req'd Qty: 4.00 ***4*** Customer:
Reference:

Approvals: Process Plan: **DAS 21 9-89** Date: **NOV 09 2016** Tooling: Date: Run Start ***NR1***
QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4456	A							DAS 21 9-89	
100	FLOW WATER JET	0.00							
100									
Waterjet	Memo	0.05							
FLOW CNC Waterjet	1-Cut as per Dwg Dwg Rev: <u>4</u> Prog Rev: <u>4</u> 2-Deburr if necessary								
110	QC2- Inspect parts off machine FAI/FAIB	0.00							
110									
QC	Memo	0.01							
Quality Control									
120	QC8- Inspect parts - second check	0.00							
120									
QC	Memo	0.01							
Quality Control									

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Work Order ID 153080***153080***

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Item ID: D4456-1

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Fwd Raingutter, LH

Start Date: 10/14/2016 Start Qty: 4.00

4

Cust Item ID:

Required Date: 11/8/2016 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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146

Receive & Inspect for Damage & Mat'l Certs

0.00

146

Packaging

Memo

0.01

Packaging

148

QC6- Inspect dimensions to drawing

0.00

148

QC

Memo

0.00

Quality Control

150

Chemical Conversion Coat per QSI005 4.1

0.00

150

HandFinish

Memo

0.05

Hand Finishing

4 8/16-12-14

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4

DEC 15 2016

(x4)

/

2016/12/16

BEB

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Item ID: D4456-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC7-Inspect Chemical Conversion Coat	0.00							
160									
QC	Memo	0.01							DAS 9 9-89
Quality Control									
170	Identify as per dwg & Stock Location: <u>51009</u>	0.00							
170									
Packaging	Memo	0.01							4 DEC 21 2016 DAS 6 9-89
Packaging									
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	Memo	0.07							DAS 21 9-89
Quality Control									DEC 22 2016

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Picklist Print

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Work Order ID: 153080

153080

Parent Item: D4456-1

D4456-1

Parent Item Name: Fwd Raingutter, LH

Start Date: 10/14/2016

Required Date: 11/8/2016

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV:A 11.11.21 NEW ISSUE DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M60610S.032		Purchased	No			100	sf	115.2000	0.125	0.526316			

M60610S 032

on 11/11/19

6061 0 SHEET .032

Location

Loc Qty

Loc Code

MAT021

115.2

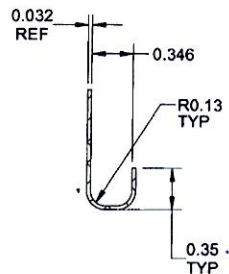
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68.7

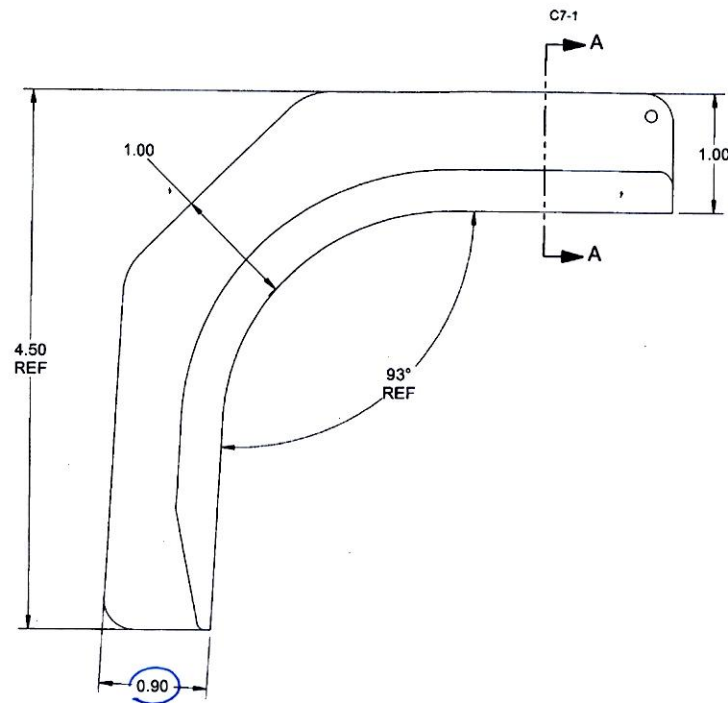
m128713

46.5

6



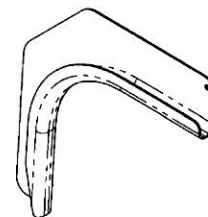
SECTION A-A D4-1



D4456-1 FWD RAINGUTTER, LH

NOTES:

- 1) MATERIAL: MAKE FROM D4456-1F FLAT PATTERN
HEAT TREAT TO 6061-T6 CONDITION AFTER FORMING
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.04 lbs
- 8) TRIM TABS ON THE HIDDEN LINES AFTER FORMING

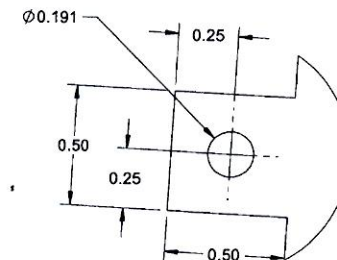
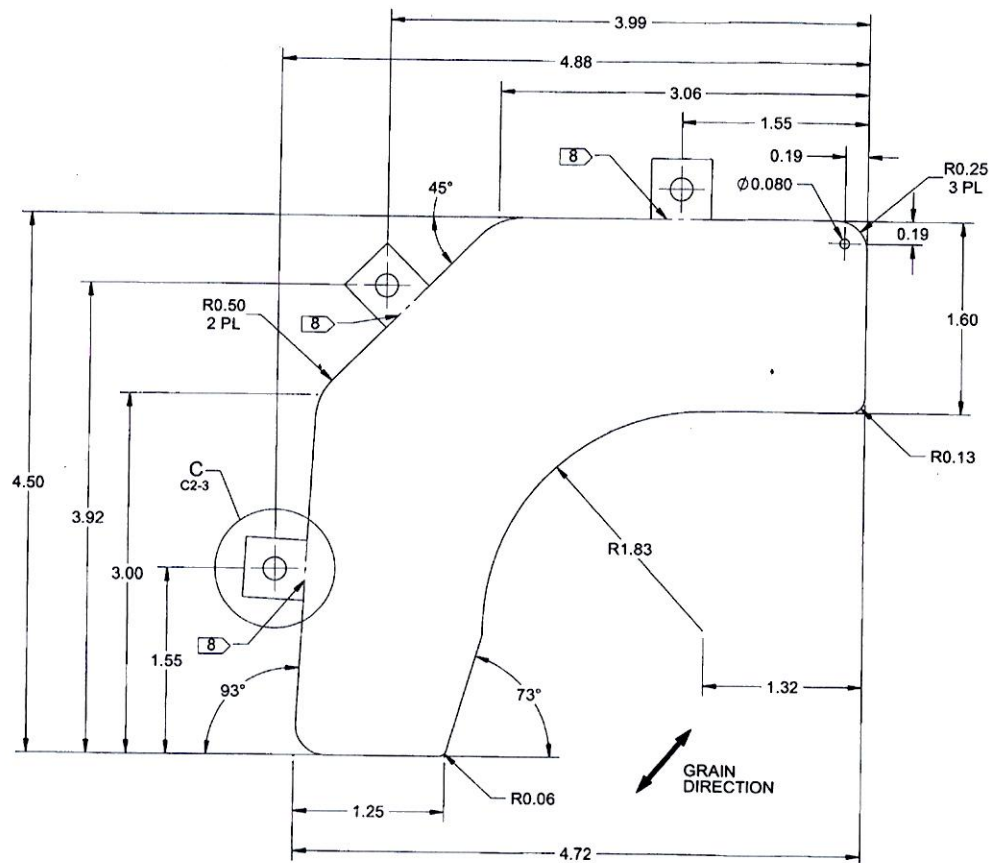


SHOP COPY
RETURN TO
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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 153080 MJS
16-11-09

RELEASED
2012-01-17
JMP

A		NEW ISSUE	RF	11.11.17
REV.	DESCRIPTION		BY	DATE
DESIGN	RF	DART AEROSPACE USA, INC. KENT, WA		
DRAWN	RF			
CHECKED	RF	DRAWING NO.	REV. A	
MFG. APPR.	RF	D4456	SHEET 1 OF 8	
APPROVED	RF	TITLE	SCALE	
DE APPR.	RF	RAINGUTTER	NTS	
DATE	11.11.17		COPYRIGHT © 2011 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



DETAIL C
TYP
C7-3
C6-3
D5-3

D4456-1F FWD RAINGUTTER FLAT PATTERN

NOTES:

- 1) MATERIAL: 6061-O ALUMINUM SHEET 0.032 THICK
PER AMS QQ-A-250/11 OR AMS 4025
REF DART SPEC M6061-OS.032
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.04 lbs

DESIGN	RF	DART AEROSPACE USA, INC. KENT, WA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO. D4456	REV. A
MFG. APPR.	<i>[Signature]</i>	SHEET 3 OF 8	
APPROVED	<i>[Signature]</i>	TITLE RAINGUTTER	SCALE NTS
DE APPR.	<i>[Signature]</i>	DATE 11.11.17	
DATE			

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RELEASED
2012-01-17
JW



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO34470**

Purchase Order Date 11/29/2016

PO Print Date 12/7/2016

Page Number 1 of 3

Order From :
METCOR INC.
560 BOUL. ARTHUR SAUVE
SAINT-EUSTACHE, QC J7R 5A8
CA

VC-MET004

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

REVISED

Contact Name
Vendor Phone 450 473 1884

Ship To Contact
Ship To Phone
Ship Via: FedEx Overnight collect
Ship Acct:

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable CD Promise Date	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	153080	D4456-1 FWD RAINGUTTER	12/14/2016 Yes 12/14/2016	4.00	\$0.00	\$0.00

HEAT TREAT TO 6061-T6

NOTE: PART ARE MADE FROM MATERIAL 6061-0 SHEET.032

DETAIL C OF C REQUIRED

Sp/16-12-15

Line Total: \$0.00

2	152811	646.9711 BLADE	12/8/2016 Yes 12/8/2016	10.00	\$7.82	\$78.18
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FINISH: HEAT TREAT TO 58-62 RC
ROCKWELL HARDNESS

PART ARE MADE FROM AISI A2 TOOL STEEL

PLEASE NOTE: DETAIL C OF C REQUIRED

Sp/16-12-12

Note:

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12/7/2016

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ
ST-EUSTACHE, QC J7R 5A8
Tel: 450-473-1884 / Fax: 450-491-5498

Reçu de livraison

Delivery Receipt

BON DE TRAVAIL Order	EXPÉDITEUR Shipper ID	BON D'EXPÉDITION Shipper
315523	1	116045

EXPÉDITION COMPLÈTE / Shipped Complete

CLIENT /Customer 215

DART AEROSPACE
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
Ph: 613-632-5200
Fax: 613-632-1053



LIVRÉ À / Shipped To

DART AEROSPACE
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
Ph: 613-632-5200
Fax: 613-632-1053

COMMANDE DU CLIENT Customer PO	BON DE LIVRAISON DU CLIENT Customer Shipper No.	TYPE DE MATÉRIEL Material Type	DATE DE LA COMMANDE Order Date	TRANSPORTEUR Carrier
34470		AL-6061	2016/11/30	fed

QUANTITÉ Quantity	No. PIÈCE / Part No.	NOM DE LA PIÈCE / Part Name	DESCRIPTION DE LA PIÈCE Part Description	POIDS Weight
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4 D4456-1
(4) D4456-1 153080 ✓

1 BOITE DE CARTON

8916-12-14.

TYPE DE CONTENEUR Container Type	# DE CONTENEURS # Of Containers	COMMENTAIRES CONTENEUR Container Comments
BOITE DE CARTON	1	

EMPAQUETAGE Packing	
------------------------	--

QUANTITÉ EXPÉDIÉE / Quantity Shipped : 4

POIDS EXPÉDIÉ / Weight Shipped : 0,23

QUANTITÉ RESTANTE / Quantity Remaining : 0

POIDS RESTANT / Weight Remaining : 0,00

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9-89

QUANTITÉ EXPÉDIÉE / Quantity Shipped: 4

POIDS EXPÉDIÉ / Weight Shipped : 0,23

Signature:

Date:

EXPÉDIÉ LE / Shipped On : 2016/12/12

METCOR INC.

560 BOUL. ARTHUR SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Certificat de Conformité Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
315523	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K8A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

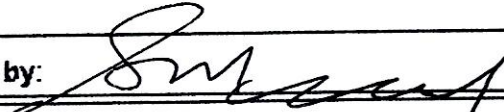
1270 ABERDEEN

HAWKESBURY

ON K8A 1K7

COMMANDE DU CLIENT customer po	CLASSIFICATION PIECE part classification	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
34470	N/A	AL-6061		
<u>SPÉCIFICATIONS DU PROCÉDÉ</u> processing specifications				
SOL ANNEAL SINGLE AGING TO CONDITION T8				
EXIGENCE / requirement SPÉCIFICATIONS / specified TESTS EXÉCUTÉS / performed RÉSULTATS DE TESTS / results				
CONDUCTIVITY		42,5 - 58,5 %IACS	4	47,5 - 48,25 %IACS
HARDNESS			4	92 - 93,5 HREW
MESURE EN HR15TW = 79,5-80,5 HR15TW				
QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description		
4	0,23	D4456-1 (4) D4456-1 153080 1 BOITE DE CARTON		

COMMENTAIRES / comments

APPROUVÉ par / Approved by: 	DATE: 2016-12-12
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DAS
38
9-89

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Certificat de Conformité Détail

Detailed Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
315523	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

1

COMMANDE DU CLIENT customer po	CLASSIFICATION PIECE part classification	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
34470	N/A	AL-6061		
SPECIFICATIONS DU PROCÉDÉ processing specifications SOL ANNEAL SINGLE AGING TO CONDITION T6				
EXIGENCE / requirement	SPÉCIFICATIONS / specified		TESTS EXÉCUTÉS / performed	RÉSULTATS DE TESTS / results
CONDUCT	42.5 - 56.5 %IACS		4 (60 kHz)	47.5 - 48.25 %IACS
HARDNESS			4	92 - 93.5 HREW MESURE EN HR15TW = 79,5-80,5 HR15TW
QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description		
4	0.23	D4456-1 (4) D4456-1 153080 1 BOITE DE CARTON		

COMMENTAIRES / comments

SOL. ANNEAL 985F, 25 MIN

AGE HARDEN 350F, 8 HRS

Heat treatment (HT) was performed with equipment that meets the requirements of requested specification. All HT operations were performed in compliance with the required HT specification and all verifications have been performed and documented. No unauthorized changes were performed in regards to the HT. We certify that the material was manufactured, sampled, tested and inspected in accordance with the material specification and the purchase order and was found to meet the requirements.

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Le traitement thermique (TT) a été fait en utilisant des équipements en conformité avec la spécification demandée. Toutes les opérations de TT ont été faites en conformité avec les requis de la spécification demandée et toutes les vérifications et les tests demandés ont été faites et documentés. Aucun changement n'a été faite par rapport au TT. On certifie que le matériel a été fabriqué, échantillonné, testé et inspecté en accord avec les spécifications du matériel et le bon de commande et le matériel rencontre les exigences spécifiées.

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Isabel Ordoñez
QA Technician

Isabel Ordoñez
METCOR

DEC 13 2016